

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/061782 A1

(51) International Patent Classification⁷: D21C 9/00,
D21H 21/14, 11/20

(74) Agent: SEppo LAINE OY; Itämerenkatu 3 B, FI-00180
Helsinki (FI).

(21) International Application Number:
PCT/FI2004/000797

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:
23 December 2004 (23.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(30) Priority Data:
20031904 23 December 2003 (23.12.2003) FI

(71) Applicant (for all designated States except US): KEMIRA OYJ [FI/FI]; Porkkalankatu 3, FI-00180 Helsinki (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BUCHERT, Johanna [FI/FI]; Alalinnake 5 A 9, FI-02160 Espoo (FI). VIIKARI, Liisa [FI/FI]; Lokkikuja 5 F, FI-00200 Helsinki (FI). GRÖNQVIST, Stina [FI/FI]; Vehkasuontie 18 A 4, FI-06750 Tolkkinen (FI). SVEDMAN, Mikael [FI/FI]; Rantakatu 10 C 13, FI-65100 Vaasa (FI). PAREN, Aarto [FI/FI]; Verkkokatu 3 A 5, FI-65230 Vaasa (FI). VUORENPALO, Veli-Matti [FI/FI]; Kasarmintie 22 b 79, FI-90100 Oulu (FI).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2005/061782 A1

(54) Title: METHOD FOR REDUCING BRIGHTNESS REVERSION OF MECHANICAL PULPS AND HIGH-YIELD CHEMICAL PULPS

(57) Abstract: The present invention concerns a process for reducing the susceptibility of lignocellulosic material to unwanted yellowing, particularly yellowing caused by light and heat. According to the invention, the fibres are activated enzymatically or chemically and then contacted with a modifying agent capable of bonding to the oxidized fibre material, rendering the lignocellulosic fibre material improved resistance to brightness reversion. By means of the invention, brightness reversion caused by light or heat or a combination thereof can be retarded and even stopped.